

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.		FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,660		12/06/2001	Ken-ichi Noda	782_203	8725
25191	7590	03/11/2004		EXAMINER	
BURR & BROWN				MAYES, MELVIN C	
PO BOX 7068 SYRACUSE, NY 13261-7068				ART UNIT	PAPER NUMBER
SYRACUSE	, 11 1	13201-7000		1734	
				DATE MAILED: 03/11/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		1					
		Application No.	Applicant(s)	Vi~			
		10/010,660	NODA ET AL.				
	Office Action Summary	Examiner	Art Unit				
		Melvin Curtis Mayes	1734				
Period fo	The MAILING DATE of this communication apport	pears on the cover sheet with the o	correspondence address				
A SH THE - External after - If the - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPL MAILING DATE OF THIS COMMUNICATION. nsions of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. period for reply specified above is less than thirty (30) days, a reply period for reply is specified above, the maximum statutory period re to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	I36(a). In no event, however, may a reply be till by within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from a, cause the application to become ABANDONE	mely filed ys will be considered timely. the mailing date of this communicat ED (35 U.S.C. § 133).	ion.			
Status							
2a)⊠	Responsive to communication(s) filed on <u>24 D</u> This action is <b>FINAL</b> . 2b) This Since this application is in condition for alloware closed in accordance with the practice under the	s action is non-final. ince except for formal matters, pr	ì	is			
Disposit	ion of Claims						
5)□ 6)⊠ 7)□	Claim(s) <u>25-36</u> is/are pending in the application 4a) Of the above claim(s) is/are withdraclaim(s) is/are allowed.  Claim(s) <u>25-36</u> is/are rejected.  Claim(s) is/are objected to.  Claim(s) are subject to restriction and/or	wn from consideration.					
Applicat	ion Papers	,					
10)	The specification is objected to by the Examine The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the E	cepted or b) objected to by the drawing(s) be held in abeyance. Section is required if the drawing(s) is ob	e 37 CFR 1.85(a). Djected to. See 37 CFR 1.121				
Priority (	under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.							
2) 🔲 Notic 3) 🔲 Infor	et(s)  See of References Cited (PTO-892)  See of Draftsperson's Patent Drawing Review (PTO-948)  Smatton Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Ser No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal F 6) Other:					

Application/Control Number: 10/010,660

Art Unit: 1734

#### **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

(1)

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(2)

Claims 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 56-152315 Abstract.

JP 56-152315 Abstract discloses a wave filter comprising: a lithium tantalate substrate 11 (first substrate); stem 14 (second substrate); and adhesive 15 (bonding layer) between substrate and stem, the adhesive comprising powder of lithium tantalate.

**(3)** 

Claims 25-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Derwent Abstract of JP 63-277589.

Derwent Abstract of JP 63-277589 discloses a support structure comprising: lithium tantalate seed crystal 2 (first substrate); cylindrical support body 1 (second substrate); and refractory cement 3 (bonding layer) between the seed crystal and support body, the cement comprising crystals of lithium tantalate.

Application/Control Number: 10/010,660

Art Unit: 1734

## Claim Rejections - 35 USC § 103

(4)

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(5)

Claims 25-36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Derwent Abstract of JP 8-234021.

Derwent Abstract of JP 8-234021 discloses a Wollaston prism having a lithium niobate or tantalate adhesive containing metal oxide, nitride or sulphide.

Further, by providing a Wollaston prism having a lithium niobate or tantalate adhesive layer, first and second substrates of single crystal of lithium niobate or lithium tantalate (Wollaston) are obviously bonded by a bonding layer comprising lithium tantalite to form an optical member, as claimed.

(6)

Claims 25-36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 00/16140.

WO 00/16140 discloses an optical waveguide comprising: two laminas 20 of lithium tantalate (first and second substrate); and a lamina of periodically poled lithium niobate sandwiched between the two laminas and bonded to the to laminas (pgs. 2-5).

Further, by providing a lamina of lithium niobate between and bonded to laminas of lithium tantalate, a bonding layer comprising a composite oxide is obviously interposed between first and second substrates because the lamina of lithium niobate bonded to the two laminas and

Page 4

Application/Control Number: 10/010,660

Art Unit: 1734

sandwiched between the two laminas bonds the two laminas to each other and thus functions as a "bonding layer" as claimed.

### Conclusion

**(7)** 

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

(8)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 571-272-1234. The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.

Application/Control Number: 10/010,660

Art Unit: 1734

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Melvin Curtis Mayes Primary Examiner

Art Unit 1734

MCM March 8, 2004